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BY THE COMPTROLLER GENERAL

# Report To The Congress OF THE UNITED STATES

108423

## Hazardous Waste Management Programs Will Not Be Effective: Greater Efforts Are Needed

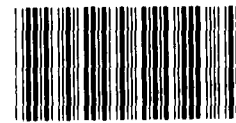
Neither the Environmental Protection Agency nor the States have the staff and funds to operate and manage programs effectively for the control of hazardous waste disposal, excluding nuclear waste, and future funds are expected to be much less than estimated needs. About 56 million tons of this waste will be generated annually by 1980.

State agency programs are not adequate to carry out the requirements of the Resource Conservation and Recovery Act of 1976.

The Environmental Protection Agency cannot

- provide the necessary technical assistance to start hazardous waste programs,
- provide the needed review and monitoring activities to assure that State programs are adequate, and
- take over and operate the programs in accordance with provisions of the act when States cannot or will not do so.

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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B-166506

To the President of the Senate and the  
Speaker of the House of Representatives

This report describes (1) the inadequacy of current State programs to assume responsibility for managing State hazardous waste programs mandated under the Resource Conservation and Recovery Act of 1976 and (2) the need for additional resources--staff and funds--to effectively carry out the provisions of the act. The report recommends that the Environmental Protection Agency encourage the establishment of fee systems for implementing and operating State hazardous waste programs. This approach is necessary because of limitations on Federal and State funds.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Administrator, Environmental Protection Agency; Members of Congress; and interested congressional committees.

Sincerely yours,

A handwritten signature in black ink, reading "Luther B. Stacks". The signature is written in a cursive style with a large, stylized "L" and "S".

Comptroller General  
of the United States



COMPTROLLER GENERAL'S  
REPORT TO THE CONGRESS

HAZARDOUS WASTE MANAGEMENT  
PROGRAMS WILL NOT BE  
EFFECTIVE: GREATER EFFORTS  
ARE NEEDED

D I G E S T

States lack the staff and funds to effectively carry out the hazardous waste requirements of the Resource Conservation and Recovery Act (RCRA) of 1976 to adequately safeguard public health and the environment. Although most States recognized the need to control such wastes, few of them had the types of controls intended by the act. (See pp. 1, 4, 14, and 15.)

Most States did not know the volumes of hazardous waste being produced in their jurisdictions and had virtually no information as to how they were being disposed of. (See p. 5.)

None of the 26 States GAO visited or contacted had fully identified hazardous waste generators in their areas or believed they had adequate enforcement programs for the limited controls that existed. (See pp. 5 and 6.)

The Environmental Protection Agency has been unable to obtain the funding authorized for carrying out hazardous waste disposal programs, and the financial and technical assistance promised to the States has not been provided. Unless adequate assistance is assured, many States have said they will not accept responsibility for carrying out the requirements of the Resource Conservation and Recovery Act of 1976. In addition, the Agency must operate programs in those States that cannot or will not operate their own. (See pp. 2 and 3.)

At the present time, no long-term funding sources are available for hazardous waste programs from the Federal, State, and local levels. Self-supporting programs which charge for waste disposal--such as fee systems--would provide an alternative source to supplement existing funds and a means of long-term program support. (See pp. 15 to 20.)

Officials of all the Agency's 10 regions said they did not have the staff to authorize, review, and monitor State hazardous waste programs nor could they provide the needed technical assistance in initiating State programs. / Of the 10 regions, 8 could not provide help in developing State regulations or assistance in orienting industry and the public on the regulatory requirements. Six regions could not provide assistance on reviewing disposal sites to determine if they were environmentally sound. (See pp. 11 and 12.)

GAO visited or contacted 26 States to find out about their programs. The States' total staff was 180 in the hazardous waste program area even though an estimated 594 positions were needed for fiscal year 1978 to implement the program.

Although the Congress authorized \$50 million in fiscal years 1978 and 1979 to make grants to States for hazardous waste programs, no funding was requested or appropriated for fiscal year 1978 and only \$15 million was appropriated for fiscal year 1979. In fiscal year 1978, the Agency funded less than \$200,000 on regional hazardous waste operations (such as onsite inspections, monitoring disposals, transportation, and permit systems). Funding has not been authorized by the Congress beyond fiscal year 1979. (See pp. 14 to 17.)

#### RECOMMENDATIONS TO THE ADMINISTRATOR

The Administrator, Environmental Protection Agency, should:

- Encourage State governments and agencies to develop self-supporting funding methods, such as fee systems, for operating and carrying out hazardous waste management programs within their jurisdictions.
- Develop model legislation for the establishment of fee systems for use by States in obtaining the necessary authorizations from their legislatures.

- Request that the Congress authorize and appropriate the funding needed for States to develop and implement hazardous waste programs beyond the fiscal year 1979 expiration date.
- Request that the act be amended to allow the Environmental Protection Agency to include a fee system to cover hazardous waste program costs where (1) a State cannot or will not assume responsibility for its program and (2) the Agency is required by the act to assume responsibility for the State's program. (See p. 21.)

#### AGENCY COMMENTS

Oral Agency comments were obtained, and changes were made where appropriate in the report. Program officials generally agreed with the conclusions and recommendations. (See p. 21.)





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ABBREVIATIONS

EPA	Environmental Protection Agency
GAO	General Accounting Office
RCRA	Resource Conservation and Recovery Act

## CHAPTER 1

### INTRODUCTION

This is the second in a series of reports on the implementation of the hazardous waste regulatory program mandated by the Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C. 6901). The first report 1/ addressed the nationwide problem of lack of treatment and disposal capacity to handle the hazardous wastes regulated. This report discusses the resources needed to effectively implement State hazardous waste management programs.

Hazardous waste sources are numerous and widely scattered throughout the Nation. They include industrial production, agricultural chemical residues, chemical or pathological wastes from institutions such as hospitals and laboratories, and wastes from Federal Government activities. For purposes of this report, the term "hazardous waste" excludes nuclear materials covered by the Atomic Energy Act of 1954, as amended. The problem of nuclear waste disposal has been addressed in other GAO reports to the Congress. 2/

Hazardous wastes may cause or contribute to acute or chronic adverse effects on human health or the environment when not properly controlled. Wastes come in many forms --solids, powders, sludges, slurries, or liquids. About 90 percent are liquid or semiliquid, which includes such substances as acids; flammables; explosives; disease-causing wastes; and toxic chemicals such as arsenic, cyanide, DDT, and PCBs. 3/

According to the Environmental Protection Agency (EPA), industry will generate an estimated 56 million metric tons of hazardous waste annually by 1980. About 34 million metric tons--61 percent--will come from industrial sources such as chemical firms. They are produced in all 50 States and Washington, D.C., with amounts ranging in 1980 from about

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1/"How to Dispose of Hazardous Waste--A Serious Question That Needs to be Resolved," CED-79-13, December 19, 1978.

2/"Nuclear Energy Dilemma: Disposing of Hazardous Radioactive Waste Safety," EMD-77-41, Sept. 9, 1977. "Improvements Needed in the Land Disposal of Radioactive Wastes--a Problem of Centuries," RED-76-54, Jan. 12, 1976.

3/PCBs--polychlorinated biphenyls--are used in the manufacture of plastics. They are highly toxic to living things and persist in the environment for a long time.

20,000 metric tons in South Dakota to about 4.6 million metric tons in New Jersey. Hazardous waste generation is expected to continue to increase from 4 to 6 percent each year.

#### HAZARDOUS WASTE LEGISLATION

In 1970, the Congress identified hazardous waste storage and disposal as a problem of grave national concern. Section 212 of the Resource Recovery Act of 1970 (Public Law 91-512) required that EPA prepare a comprehensive report to the Congress on hazardous waste storage and disposal. EPA submitted a report to the President and the Congress on June 30, 1973, entitled "Disposal of Hazardous Waste." The report noted that

- management of the Nation's hazardous residues is generally inadequate,
- numerous case studies have shown that public health and welfare are threatened unnecessarily by uncontrolled waste discharges into the environment, and
- hazardous waste disposal on the land is increasing.

When RCRA was enacted, Federal, State, and local legislation concerning hazardous waste treatment and disposal was generally considered inadequate. As a result, waste generators had little or no pressure to properly manage their hazardous waste disposal practices. Improper management was responsible for various tragic incidents which harmed both humans and wildlife and caused serious ecological damage. To prevent such problems in the future, the act established Federal regulatory control over hazardous waste disposal.

The Congress intended the act to insure that hazardous wastes would be properly managed and sought to regulate them from "cradle to grave." The act charged EPA with responsibility to implement and administer the program, including development of a regulatory framework to identify hazardous waste and properly manage its disposal. The act established the Office of Solid Waste in EPA to carry out this requirement.

Subtitle C of the act provided that by April 21, 1978, 18 months after the enactment date, EPA should

- develop and issue criteria for identifying hazardous waste characteristics and to list hazardous wastes subject to the act,
- issue regulations establishing standards applicable to hazardous waste generators, transporters, owners and operators of hazardous waste treatment, storage, and disposal facilities, and

--issue regulations requiring that hazardous waste treatment, storage, and disposal facilities obtain permits.

RCRA charged the EPA Administrator with responsibility for implementing its provisions, yet it allowed the States to assume responsibility for development and implementation of hazardous waste programs in the States.

Subtitle C of the act authorized funds for EPA to discharge the administrative provisions of subtitle C as follows.

<u>Fiscal year</u>	<u>Amount</u> (millions)
1977	\$10.5
1978	11.4
1979	12.6

In addition to assisting the States to develop and implement authorized hazardous waste programs, the act authorized \$50 million for fiscal years 1978 and 1979--\$25 million each year--for grants.

#### SCOPE OF REVIEW

We reviewed EPA's plans and scheduled program of implementation to determine if the resources--staffing and funding--were adequate to assure effective implementation of the act. We also examined the feasibility of implementing a fee system of charges to be made against waste disposers as a source of funds for operating hazardous waste programs.

During our review of State hazardous waste programs, we talked to State officials to determine if States had adequate hazardous waste programs and if they intended to accept responsibility for implementing the act.

We performed our review at EPA headquarters, Washington, D.C.; at EPA regional offices in Chicago, Dallas, New York, Philadelphia, San Francisco, and Seattle; and we contacted EPA officials in four other regional offices. We visited State organizations in California, Illinois, Maryland, Michigan, New Jersey, New York, Oregon, Pennsylvania, Texas, and Washington, and contacted officials in 16 other States. (See app. I for a listing of the locations visited and the agencies contacted.) We met with representatives from industry associations; trucking companies; and industrial and hazardous waste treatment, storage, and disposal firms to obtain their views on the progress and problems in implementing the act.

## CHAPTER 2

### INADEQUATE PROGRAMS TO IMPLEMENT

#### HAZARDOUS WASTE REQUIREMENTS

Current programs operated by State agencies are not adequate to assure effective and timely implementation of RCRA's hazardous waste requirements. At present, operational hazardous waste regulatory programs or programs to be implemented in the near future, when compared with the volume of such wastes to be disposed of, cannot adequately safeguard public health and the environment. EPA cannot (1) provide the necessary technical assistance to States to implement their programs, (2) provide the needed review and monitoring activities to assure the adequacy of State programs, and (3) take over and operate State hazardous waste programs, in accordance with the provisions of the act, where States cannot or will not do so.

In addition, because of staffing and funding limits, State agencies and EPA have not completed the first steps needed to implement the hazardous waste requirements of the act. In this regard, EPA had not met the April 21, 1978, date stipulated in the act for development of a definition (with input by the States) of hazardous waste. EPA also had not developed the necessary environmental standards for use by disposers, treaters, and storers of hazardous waste. EPA issued proposed regulations on December 18, 1978, but the Agency estimates that final regulations will not be issued until sometime in 1980.

In the absence of substantial funding increases, the prospects for an adequate hazardous waste program for the Nation are not good. Only a part of the authorized fiscal year 1978 funding was requested, and adequate funding for fiscal year 1979 is doubtful. Furthermore, the act does not provide for any funding after fiscal year 1979.

As a result, EPA does not have the resources to implement the act nationwide, and at the time of our review EPA regional officials stated they may have to provide interim authorization for State hazardous waste programs that are not substantially equivalent to RCRA requirements. Furthermore, most State officials acknowledged they may not operate State programs if adequate Federal funding is not assured. The establishment of fee systems for the disposal of hazardous waste may offer a long-term solution to implementation and State funding problems.

STATE AND EPA OFFICIALS LACK KNOWLEDGE  
ON THE VOLUMES OF HAZARDOUS WASTE

None of the officials in the 26 States visited or contacted knew the exact volume of hazardous waste generated in their States, and none of the States could adequately account for the disposition of these wastes. State officials could provide only the most general estimates on hazardous waste volumes, and none were satisfied with the quality of the estimates. The States represented about 80 percent of the estimated total waste volume generated in the country.

In one large State, for example, State officials estimated 20 million tons were generated each year but could account for disposition of only 2.2 million tons. In another large State, we were informed initially there was no information on the volume and types of hazardous waste generated. Although estimates had been made on the basis of two EPA studies, the State officials questioned the results and initiated their own survey of hazardous waste generation in the State. State officials in that State now believe they can account for about 80 percent of the hazardous waste reported in the survey. They acknowledged, however, that they still have no idea of the volume of hazardous waste being illegally dumped. They said this will be the case until (1) a manifest system to track the waste from the point of generation to its final disposition is placed in effect, (2) all waste transported is handled by State-registered waste transporters, and (3) the waste generator is required to identify the ultimate disposal facility taking the wastes.

Under a contract to develop an environmental impact statement on the implementation of subtitle C of RCRA, preliminary estimates were made of the volumes of hazardous waste produced in the States. About 56 million metric tons are estimated to be produced annually by 1980. (See app. II.) Although the estimates were produced after substantial effort by EPA and the contractor, EPA expressed reservation on the quality of the estimates and pointed out that the figures were preliminary and had not been reviewed. EPA also stated that the tonnage estimates will be significantly affected by the definition of a hazardous waste. On December 18, 1978, EPA issued proposed regulations defining hazardous waste, but the Agency estimates that they will not become finalized until January 1980.

EXISTING STATE PROGRAMS  
ARE NOT ADEQUATE

Our review at 26 States indicated that the hazardous waste programs of all but 2 are in very early stages of development or are wholly inoperable. Most States have not carried out even some of the basic first requirements of a hazardous waste program. In addition, they had only general estimates on the volumes of hazardous wastes being produced within their States and were not certain where they were being disposed of. None of the 26 States had fully identified waste generators within their State jurisdictions, and none had adequate enforcement programs.

According to EPA, the objectives of a hazardous waste management program are to make certain that hazardous wastes are properly handled and controlled to prevent undue harm to human health and the environment. These programs are based on legislation which authorizes their development and implementation coupled with an effective enforcement program.

The elements of an effective State hazardous waste program are the same as those to be required by EPA under subtitle C of the RCRA regulatory program. For authorization States must demonstrate that their control program (1) is at least as stringent as the Federal program, (2) covers the same universe of wastes, and (3) provides the same degree of control over generators, transporters, and waste management facilities. Each State program must also have the following program elements: (1) regulations identifying which wastes are hazardous and to be controlled, (2) regulations covering containers and placarding, (3) a manifest system to control the movement of wastes, (4) standards for hazardous waste management facilities which define acceptable design, operating, and financial requirements for treatment, storage, and disposal, and (5) a permit system to control treatment, storage, and disposal facilities. In addition, each State must provide for adequate recordkeeping and reporting and an effective surveillance and enforcement program acceptable to EPA.

Most States recognize the necessity to control the handling and disposal of hazardous waste and are trying to do something about it. Presently, however, few if any States have hazardous waste programs which provide the control intended by RCRA.

A 1977 EPA study showed that overall most State hazardous waste programs were seriously lacking. For example, of the 50 States, only



- 6 had provisions for onsite inspection of disposal sites;
- 10 had provisions for enforcement action (the remaining States had no such requirements);
- 12 had provisions for monitoring the waste disposal process;
- 16 had provisions which would require a manifest system to identify and list the wastes being disposed of;
- 17 had criteria to define a hazardous waste or a listing of hazardous wastes; and
- although 25 had provisions for a permit system or standards requiring a permit system, only 1 had a requirement that covered all parties in the waste disposal chain (treaters, storers, and disposers).

The following examples describe hazardous waste program implementation difficulties.

#### Michigan

Michigan does not have a systemized hazardous waste management program, although some aspects of hazardous waste are addressed by various environmental service groups within the State. Since 1970, liquid industrial wastes have been managed through a formal program. However, no current concerted effort in the State identifies solid hazardous waste generators, and only those liquid waste generators which transport their hazardous wastes by means of "outside contractors" have been identified.

A number of weaknesses in current State laws need correcting before the State's hazardous waste program can be implemented. The State's manifest system only controls the movement of liquid hazardous waste. Although the State currently has no definition of hazardous waste, legislation has been proposed which would require such a definition. A commitment for continued funding of the State program over a long period of time is needed because the State legislature must approve not only the use of State funds but Federal funds as well.

State officials have acknowledged there are no facilities in the State to adequately store, stabilize, or dispose of toxics or hazardous materials and that there are no environmentally secure landfills or incinerators in the State to adequately dispose of hazardous waste materials.

## New Jersey

New Jersey is in the process of developing a strict hazardous waste management program and should soon be able to address the most serious hazardous waste management problems of any State in the country. For the first time, according to New Jersey Department of Environmental Protection officials, there is definitive information on the amounts and types of hazardous waste generated by New Jersey industry. State officials have also stated they have no idea how much hazardous waste is illegally dumped. A survey of about 10,000 waste generator firms in the State is half completed. Potential hazardous waste generated has been estimated at 250,000 tons per year dry weight. <sup>1/</sup> Over the years, substantial amounts of hazardous wastes have been shipped into the State for disposal, and State officials regard this practice as a major problem. State Officials believe the biggest waste generators are the chemical, petroleum, and pharmaceutical industries.

A recently initiated manifest system designed, as an "enforcement" tool, should reduce the amount of illegal dumping. The system will require generators to identify the ultimate disposal facility and have their wastes transported only by registered waste transporters. On May 1, 1978, new regulations to control so-called "special hazardous wastes" from "cradle to grave" were promulgated.

The State did not compare State laws and regulations with RCRA requirements since they had not been promulgated by EPA. A significant exception in the State requirements is the absence of provisions for long-term care of hazardous dump sites, although considerations are underway to establish some kind of revolving fund as a means of providing them. These provisions are incorporated in new draft facility regulations which were to appear in the December 1978 State register.

As of October 28, 1978, there were no commercial landfills authorized by New Jersey to accept solid or liquid chemical or hazardous wastes for disposal; there were 20 onsite dumping facilities and 27 commercial firms to treat and dispose of waste by incineration, treatment, or recovery.

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<sup>1/</sup>Estimated by EPA at 4 million metric tons wet weight.

## Pennsylvania

Pennsylvania State officials responsible for implementation of the State's hazardous waste program have acknowledged that, as of December 1977, they had not implemented a viable hazardous waste program. They attributed the absence of such a program to the State General Assembly's inability to provide the necessary funds. They stated that current efforts are "hit or miss" and that the program operates on a reaction-to-problem basis rather than as a planned program.

In a November 1976 report on the State's solid waste planning efforts, the Pennsylvania Division of Solid Waste Management estimated that only 10 percent of the hazardous waste generated was subject to enforcement under the then-existing requirements and that 90 percent was unregulated and uncontrolled. It was also estimated that Pennsylvania was generating about 1 million tons of hazardous waste annually--which ranks it third nationally in the generation of hazardous waste and first if "slag" is considered.

Officials were not optimistic that the State legislature would provide the necessary funding to develop a hazardous waste program because of controversies over toxics and spending. They stated that even under the matching funds requirement adopted by EPA--75-percent Federal and 25-percent State funding--the State would have difficulty providing the necessary funds. State officials said that unless EPA can provide continued assurances on the State's funding concerns, they do not expect that Pennsylvania will accept responsibility for the hazardous waste program.

## Texas

The Texas hazardous waste program has existed since 1969. State officials estimated that of the 8-1/2 million tons of hazardous waste generated each year, they can account for about 70 percent. They acknowledged, however, that their program is still in the development stage and they are still in the process of identifying hazardous waste generators. Of its estimated 1,400 to 1,700 generators, the State has identified 1,350.

State officials have indicated that while their current staffing is adequate under current State laws, it is inadequate for implementing RCRA requirements. They stated they intend to apply for full authorization under RCRA to run their State program but that it is not likely the State would provide additional funding to run a program substantially equivalent to Federal requirements. They pointed out that permitting of disposal sites under RCRA requirements

would be a much greater undertaking than under current State criteria. Current staffing does not allow a thorough evaluation of onsite industrial solid waste disposal facilities.

#### IMPROVEMENTS IN STATE LEGISLATION TO IMPLEMENT STATE HAZARDOUS WASTE PROGRAMS

The State legislative authorities ranged from separate laws clearly defining the scope of State authorities to broadly worded provisions included as part of other environmental acts, such as in State solid waste acts or water pollution control acts. In most cases, State organizations operated under broadly worded provisions, without designated standards and criteria. As a result, generators and handlers interpreted the requirements in varying ways. In some cases where State controls were clear, compliance was often difficult to enforce since the needed treatment and disposal facilities were not available within the particular State's jurisdiction. In some cases, where specific activities were prohibited by State law, a lack of suitable alternatives within the State encouraged environmentally unsound disposals. (App. III provides a summary of the legal authorities and controls exercised by each State and the principal State regulatory agency.)

In October 1978, 41 States had some provisions for hazardous waste controls within existing solid waste legislation. Additionally, only 17 of the States had enacted specific legislation for the management of hazardous, special, or industrial wastes. Certain of the States that generate the greatest estimated amounts of hazardous materials lacked such legislation. At least 12 States are considering or are planning to propose hazardous waste legislation.

Although under current legislation many of the States attempted to define which hazardous waste materials were to be regulated, such definitions differed widely among the States. They ranged from listings of materials considered hazardous to explicit characteristic properties distinguishing hazardous waste from other general solid waste. Frequently, even though two States had equally comprehensive management plans, materials regulated under one State's requirement were not to be regulated under another's requirements.

Only 12 States had some type of regulations or guidelines for hazardous waste controls or waste-related activities. Certain of these regulations or guidelines were inclusive for all activities, while others were specific for only certain aspects of hazardous waste management, such as

disposal activities or waste generator activities. The differences in controls were attributed to factors such as the amount and variety of hazardous wastes being produced. However, under existing legislation, most States had started to identify sources of hazardous wastes within their boundaries. At least 35 States have completed or are in the process of assessing hazardous waste amounts being generated in their areas.

EPA CANNOT PROVIDE TECHNICAL ASSISTANCE,  
REVIEW, AND MONITORING SERVICES TO THE STATES

In a December 1977 implementation draft strategy, EPA stated that its regional offices will be the focal point for implementing the act. Their functions should include lead responsibility to assist States in developing acceptable hazardous waste regulatory programs, monitoring State progress, and assuring that applications for program funds are adequate.

Hazardous waste program officials in all 10 EPA regional offices informed us that for the immediate future periods, they would not have adequate staff to carry out the following basic activities, which they considered critical to hazardous waste management:

- All 10 EPA regional offices could not provide the necessary technical assistance to the States in initiating their programs.
- Eight regional offices acknowledged they could provide no help to the States in the development of State regulations.
- Eight regional offices acknowledged they could provide no assistance in orienting industry and the public on the regulatory requirements to be developed in the hazardous waste area.
- Six regional offices acknowledged they would not be able to review disposal sites to verify if they were environmentally sound.

EPA officials in all 10 regions stated that they would not have the needed staff to authorize, review, and monitor State programs in their regions. For example, one EPA regional office official told us he would need six staff members and that at present only one staff member was available to review, authorize, and monitor State programs in the

region. EPA officials in four other regions said they would need at least four times their present staff levels to perform these activities.

Since we completed our review work, EPA headquarters has begun identifying hazardous waste sites throughout the country. In November 1978, it identified 32,254 sites with hazardous waste that may be potentially harmful to public health and the environment.

#### EPA MAY APPROVE INADEQUATE INTERIM STATE PROGRAMS FOR IMPLEMENTING RCRA

RCRA allowed States to assume responsibility for hazardous waste programs if their existing or planned programs received EPA approval. In order for EPA to approve a State program it must first determine that the proposed program is substantially "equivalent" to and consistent with the Federal program and other State programs and that it contains provision for adequate enforcement. If a State cannot provide adequate staff to enforce its regulations, the State application cannot be approved. Where a State cannot or will not operate an adequate program, EPA is required under the act to operate that State's program.

In addition, special provisions exist for States which have hazardous waste management programs in effect within 90 days of issuance of the regulations. If a State submits evidence showing that its program is "substantially equivalent" to the Federal program, EPA must grant the State an "interim authorization" to operate for a 2-year period.

In an August 14, 1978, draft document "Resource Needs For Conducting A State Hazardous Waste Program," EPA described a substantially equivalent State program as follows:

"A State must have legislative authority at minimum over either on-site or off-site hazardous waste disposal facilities. Also, it must have authority to conduct inspections and institute enforcement proceedings. The State must have the resources to carry out this minimal program and must identify resource levels at both the beginning and end of the interim period. The State must have the capability to issue permits in those areas which they have sufficient legislation. The State must have a sufficient surveillance and enforcement effort in the judgment of the Regional Administrator.

This may be less than that necessary to achieve full authorization. The State must also provide for a public participation program. Finally, in its application for interim authorization, the State must include an Authorization Plan which will describe the changes necessary to achieve full authorization and a schedule for making the necessary changes."

To determine the resources necessary to implement the program and to subsequently maintain it, EPA recommended the following staffing needs for a medium-size State program.

<u>Activity</u>	<u>Staff years</u>	
	<u>Implementation</u> <u>(first 5 years)</u>	<u>Maintenance</u> <u>(annually)</u>
Hazardous waste survey	.60	-
Develop or modify authorizing legislation	.20	-
Develop and promulgate rules and regulations and conduct public participation	.68	-
Staff hiring and development	2.00	1.00
Review permit applications and issue permits and conduct public participation and due process	10.40	1.00
Surveillance	1.45	2.90
Enforcement	1.50	3.00
Review reports	3.80	3.80
Technical assistance, training and education	1.50	1.50
Coordination with other agencies	.50	.50
Laboratory services	.95	1.90
Data management	<u>1.00</u>	<u>1.00</u>
Total	<u>24.58</u>	<u>16.60</u>

The EPA Director of the Hazardous Waste Management Division estimated that EPA will be forced to operate hazardous waste programs in about 20 States because the States will not apply or be eligible to operate their own programs. EPA regional officials in all 10 regions told us they did not have enough staff to operate hazardous waste programs in any of the States.

Although EPA regional officials do not believe most States have enough staff to operate hazardous waste programs substantially equivalent to the Federal program, officials in two of the regions stated they intend to grant interim authorization to the States rather than operate the program themselves. One EPA regional official told us that he had been directed by headquarters to grant interim authorization to any State that applied, regardless of the adequacy of its programs. He acknowledged that his region could not operate any State's hazardous waste programs with its present staffing level. He estimated that one of the States in his region would need 10 staff members to operate an adequate program but that even though the State presently has no staff in the area, EPA intends to grant interim authorization to the State if it applies.

EPA headquarters officials have denied that any regional office has been directed to grant interim authorization to States not meeting requirements. They stated they believe a few States have adequate staff to operate hazardous waste programs equivalent to the Federal program. However, for interim authorization--up to 2 years as defined by the act--EPA is interpreting "substantially equivalent" as requiring only a basic program. The major variant from full authorization would be that during interim authorization a State may exert a lesser degree of control, including narrower coverage, less stringent application of requirements, and smaller staff. They stated that although EPA's regulations will not allow even interim authorization of a nonexistent, unstaffed, or limited State program, because of limited regional resources the pressure will be on regional officials to authorize as many States as they possibly can. They acknowledged that a number of regional officials have indicated their intention to do this.

EFFECTIVE MANAGEMENT OF HAZARDOUS  
WASTE WILL NOT BE REALIZED UNLESS  
ADEQUATE RESOURCES ARE COMMITTED

EPA's hazardous waste program budget request for fiscal year 1978 included \$14,450,000 and 195 staff positions for the development of hazardous waste guidelines and regulations and to implement the regulatory strategy. The Office



of Management and Budget however, approved only \$5,068,000 and 48 staff positions for the program. In a November 1976 letter to the President, the EPA Administrator expressed concern that the funding cut would prevent EPA from meeting deadlines established by the act. Also, EPA would not be able to develop (1) hazardous waste tolerance levels and (2) necessary standard testing and sampling techniques required to be done by EPA for the States that do not assume hazardous waste responsibilities.

The Congress increased the requested amount slightly by approving 56 staff positions and appropriating \$5,108,000 --reprogramed by EPA to \$4.4 million--an amount that was still significantly less than the minimum \$11.4 million authorized by the act. On this basis, EPA's 1978 fiscal year operating plan for regional hazardous waste operations originally contained \$193,000 and seven staff positions. After reprogramming by EPA, regional operations were set at \$183,000, headquarters personnel costs at \$1.4 million, and development and implementation of hazardous waste regulations and manuals at \$2.8 million.

The States have expressed their need for Federal funding to develop, implement, and improve their hazardous waste programs. Most State hazardous waste programs have received only minimal financial support from their legislatures, and many State officials told us their legislatures are not sympathetic to providing additional funding. During our visits to the States, some officials expressed the view that since hazardous waste legislation is a Federal program, the Federal Government should either operate the programs or fund State programs. These officials said they were reluctant to accept responsibility for hazardous waste programs because in the past they have not received adequate Federal financial assistance to carry out other federally imposed pollution control programs.

The Congress recognized that the States would need financial assistance. Subtitle C of the act authorized \$50 million for fiscal years 1978 and 1979--\$25 million each year--for grants to assist the States in developing and implementing hazardous waste programs. Despite State requests and threats to refuse program responsibility, the funds authorized under subtitle C were not requested for fiscal year 1978, and the \$15 million appropriated for fiscal year 1979 is only 60 percent of the funds authorized.

In fiscal year 1978, the States received \$14.6 million in funds authorized by subtitle D of the act. These funds were to be used for developing the State or regional solid waste plans required by subtitle D and to develop the

hazardous waste management program required by subtitle C. EPA considered the funds adequate to implement its strategy.

In October 1977, the Chairman, Subcommittee on Transportation and Commerce, House Committee on Interstate and Foreign Commerce, expressed concern about the amount of additional fiscal year 1978 funding needed for implementing the act. EPA replied that an additional \$19.6 million could be used to support State and local activities. Included in the estimates was \$3.6 million to help several States develop and assume hazardous waste programs. EPA stated, however, that since this additional funding was not within the executive branch fiscal year 1978 budget plan, EPA could not support any request for supplemental funds.

All of the 26 States we reviewed estimated they would need additional funding to establish hazardous waste programs equivalent to the proposed Federal program. Most States indicated these additional funds could not be expected to come from the States. At least 16 States, including major waste-generating States such as Indiana, New York, Ohio, and Pennsylvania, indicated they may not accept responsibility for the act unless adequate Federal funding is available.

For fiscal year 1978, the 26 States contacted were short about \$9.3 million and about 414 staff members to provide programs that would meet RCRA requirements. Projecting State cost estimates to all 50 States and Washington, D.C., shows that the total cost to manage State hazardous waste programs would be about \$24.3 million. In addition, 16 States indicated that they may not operate these programs unless adequate Federal funding is provided. This figure could be higher if the States not contacted were polled.

The most obvious effect of inadequate State funding is insufficient staff. According to their own estimates, none of the 26 States had sufficient staff to develop and operate a program that would meet the requirements of the act. The States contacted had staffs totaling 180 but stated that 594 were needed, a 229-percent increase. (See app. IV.)

Because of staff shortages, State officials said they are not able to perform activities which they consider essential to initiating and operating effective hazardous waste programs, including

- identifying generators of hazardous waste,
- inspecting and providing technical assistance to disposal sites to assure that they are environmentally sound, and
- providing adequate program enforcement.

#### POSSIBLE SOLUTION TO FUNDING PROBLEMS

RCRA authorized Federal funding only through fiscal year 1979, and many States have said they may not accept responsibility for implementing the act's hazardous waste provisions as intended by the Congress. Therefore, EPA will need alternative funding after fiscal year 1979 to provide program oversight and to operate hazardous waste programs in States that do not seek or receive EPA authorization to operate their own programs. If the Congress and the State legislatures do not provide adequate financial assistance, it is unlikely that the program will ever be effectively implemented unless alternative funding sources are provided to supplement existing funds and to support program costs. In the States we reviewed, the only alternative funding source we noted was a fee system. At the present time, only two States are using a fee system, although others are considering it.

#### Alternative funding sources

The Congress could extend the existing Federal grant assistance time period, but other alternative sources are also available to provide long-term funding. Excise taxes, disposal fees, or a combination of fees with public funding are possibilities. In a 1974 study, the Office of Management and Budget directed EPA to investigate methods to help State programs become more self-supporting. EPA examined the use of fees as a method to fund State and local pollution control agencies; however, EPA concluded that (1) its grant program should not be phased out and (2) the Federal Government should not formally encourage the use of fees. The report stated that the greatest obstacle to raising revenues through fee systems was the negative attitude of State and local officials.

Some States, however, have been considering funding alternatives. California, Maryland, and Tennessee either had fee systems or were implementing or designing fee systems to sustain some or all hazardous waste program costs. Generally, the systems included a fee, charged to the waste disposer, to support program operating costs. The disposer was expected ultimately to pass on such costs to the waste

generator. State officials we interviewed generally believed that a fee system was a more equitable means to finance a hazardous waste program than the use of State funds. Although the fee systems being designed would differ, all were developed from the same basic philosophy of charging the waste disposer for the costs incurred.

#### Fee system concept

The fee system concept was adopted by two influential, policy-formulating organizations. The Cabinet-level Resource Conservation Committee stated that pollution costs should not be subsidized by taxpayers or those directly exposed to pollution; rather, those producing and consuming pollution-associated products should pay. Also, all member nations of the Organization for Economic Cooperation and Development, including the United States, have accepted this concept as a basic pollution control principle.

The Federal and State agency practice of collecting fees or taxes to pay for program costs is not a new concept. For example, for over two decades the Federal Highway Administration has administered various excise taxes to pay for Federal highway construction programs. Also, the Department of the Interior has administered sporting arms 1/ and fishing equipment taxes to support wildlife conservation programs. The EPA study shows that State pollution control agencies have levied fees for over 20 years to cover certain program costs. The study pointed out that State and local air and water pollution control agencies in Illinois, Ohio, Arizona, California, and Michigan have charged fees to defray program costs. For example, an Arizona air pollution agency was expected to raise two-thirds of its revenues through fees. Most agencies levied fees as a charge for services or privileges received by an individual. Michigan State air and water agencies, however, charged fees to cover general surveillance activities costs.

Most State and EPA officials with whom we discussed a fee system supported the fee system concept. In addition, several State and EPA officials told us that a fee system could provide sufficient long-term funding to underwrite hazardous waste program costs, may provide an economic incentive for producers and consumers to alter their production and purchasing practices, and may even reduce the use of hazardous waste-producing products. Some officials

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1/ Includes firearms and archery equipment.

also believed that an increase in disposal costs would contribute to the use of hazardous waste reduction techniques, waste treatment, and the exchange of wastes among companies.

Certain EPA regional hazardous waste officials we visited favored implementing a fee system to support EPA program costs in States that refuse to accept program responsibility. One official stated that if EPA were to implement fee systems, industry would generally encourage the States to operate their own programs. Other State and EPA regional officials also believed that industry was more receptive to State rather than Federal regulations.

Although most State officials interviewed accepted the fee system concept, some reported that they had not considered implementing a fee system to finance their programs. Other State officials expressed the following concerns about implementing a fee system.

- Some State agencies are expressly prohibited by State statute from charging fees or cannot levy fees unless specifically authorized by State law.
- Resistance from disposer groups required to pay fees could be politically difficult to overcome.
- A fee plus normal disposal charges may increase the amount of illegal hazardous waste dumping taking place.
- Such a system may be difficult or costly to administer.
- If a State implements a fee system, it may cause wastes to be exported to the States that do not have fee systems or that have lower disposal charges.
- States do not want the burden of establishing a fee system until their programs are fully developed, generally within 2 to 5 years.
- State legislatures may use the revenues generated by a fee system for other programs.

We found that in California many of the above concerns were not a problem or were not expected to cause problems. In 1972, the California Legislature authorized a fee system and established a special account for fees collected. The funds generated were earmarked solely for hazardous waste management and enforcement activities. State officials told us that without strong enforcement, illegal hazardous waste

disposal would probably increase; however, the fee rate is expected to be sufficient to provide for increased enforcement and surveillance activities. These officials stated that the fee charged was minor--averaging about 5 percent of the total costs incurred when a hazardous waste producer disposes of the waste. In addition, they noted that the administrative costs of the California system were minimal.

Details describing the California and Maryland fee systems, both of which were designed to finance all hazardous waste program costs yet operate differently, are included in appendix V.

## CONCLUSIONS

Neither EPA nor the States have the resources to effectively operate and manage programs for the control of hazardous waste disposal. EPA has been unable to obtain the funding authorized for program implementation and administration, and the financial and technical assistance promised to the States has not been provided. Unless adequate State assistance is assured, many States have acknowledged they will not accept responsibility for implementing RCRA.

The Federal and State funding provided for fiscal year 1978 was not adequate, and the fiscal year 1979 funds appropriated are substantially less than estimated needs.

There are no provisions in RCRA for EPA administrative costs or for EPA grants to the States after fiscal year 1979, and alternative long-term funding sources appear to be needed if the program is to be implemented effectively. Without funding assistance, many States cannot implement RCRA's hazardous waste provisions as directed by the Congress, and EPA will be required to provide the program support to operate such State hazardous waste programs. Self-supporting programs would encourage the States to accept their program responsibilities and would reduce State dependency on Federal funding. EPA-developed model legislation would also assist the States to obtain the necessary authorizations and to implement the fee system approach. Fee systems would eliminate the need for State as well as Federal general revenue support for hazardous waste programs. Where EPA would be required to operate State hazardous waste programs, fee systems could be used to underwrite EPA program costs.

## RECOMMENDATIONS TO THE ADMINISTRATOR

The EPA Administrator should:

- Encourage State governments and agencies to develop self-supporting funding methods, such as fee systems, for operating and carrying out hazardous waste management programs within their jurisdictions.
- Develop model legislation for the establishment of fee systems for use by States in obtaining the necessary authorizations from their legislatures.
- Request that the Congress authorize and appropriate the funding needed for States to develop and implement hazardous waste programs beyond the fiscal year 1979 expiration date.
- Request that RCRA be amended to allow EPA to include a fee system to cover hazardous waste program costs where (1) a State cannot or will not assume responsibility for its program and (2) EPA is required by RCRA to assume responsibility for the State's program.

## AGENCY COMMENTS

Comments were obtained orally from the Agency's program officials on November 21, 1978. These officials generally agreed with the conclusions and recommendations contained in the report.

STATE HAZARDOUS WASTE AGENCIES CONTACTED

<u>State</u>	<u>Agency</u>
Alabama	Department of Health
California	Department of Health
Connecticut	Department of Environmental Protection
Delaware	Department of Natural Resources and Environmental Control
Georgia	Department of Natural Resources
Illinois	Environmental Protection Agency
Indiana	State Board of Health
Iowa	Department of Environmental Quality
Louisiana	Health and Human Resources Administration
Maryland	Water Resources Administration
Massachusetts	Department of Health and Mental Hygiene
Michigan	Department of Environmental Management
Minnesota	Department of Natural Resources
Missouri	Pollution Control Agency
New Jersey	Department of Natural Resources
New York	Division of Environmental Protection
North Carolina	Department of Environmental Conservation
Ohio	Department of Human Resources
Oklahoma	Environmental Protection Agency
Oregon	Department of Health
Pennsylvania	Department of Environmental Quality
Tennessee	Department of Environmental Resources
Texas	Department of Public Health
Washington	Water Quality Board
West Virginia	Department of Ecology
Wisconsin	Department of Health
	Department of Natural Resources



ESTIMATED HAZARDOUS WASTES GENERATED BY STATES IN 1980

	<u>Thousands of metric tons</u>
Alabama	850
Alaska	40
Arizona	180
Arkansas	420
California	3,760
Colorado	300
Connecticut	950
Delaware	430
District of Columbia	40
Florida	1,220
Georgia	970
Hawaii	40
Idaho	230
Illinois	3,840
Indiana	2,020
Iowa	540
Kansas	440
Kentucky	900
Louisiana	1,360
Maine	200
Maryland	840
Massachusetts	1,290
Michigan	2,640
Minnesota	690
Mississippi	390
Missouri	1,480
Montana	60
Nebraska	190
Nevada	50
New Hampshire	170
New Jersey	4,640
New Mexico	80
New York	3,500
North Carolina	1,690
North Dakota	30

	<u>Thousands of metric tons</u>
Ohio	3,840
Oklahoma	300
Oregon	290
Pennsylvania	3,710
Rhode Island	240
South Carolina	1,350
South Dakota	20
Tennessee	2,480
Texas	3,580
Utah	140
Vermont	60
Virginia	1,550
Washington	540
West Virginia	970
Wisconsin	1,210
Wyoming	<u>20</u>
Total	<u><u>56,700</u></u>

## STATE REGULATION AND CONTROL AUTHORITIES

## Solid and Hazardous Waste Programs

November 1978

STATE PRINCIPAL REGULATION AGENCY	DATE OF ENACTMENT OF STATE SOLID WASTE LEGISLATION	DATE OF LATEST AMENDMENT	DATE OF ENACTMENT OF HAZARDOUS SPECIAL OR INDUSTRIAL WASTE LEGISLATION	PROPOSED LEGISLATION	HAZARDOUS WASTE REGULATIONS OR GUIDELINES	SOLID WASTE REGULATIONS WITH HAZARDOUS WASTE PROVISIONS				
						HAZARDOUS WASTE DEFINITION	ADDRESSED IN PART	ADDRESSED AS A SEPARATE SECTION	HAZARDOUS WASTE SURVEY COMPLETED	HAZARDOUS WASTE SURVEY IN PROGRESS
ALABAMA	DEPT. OF PUBLIC HEALTH	1969	1971		X		X	X	X	
ALASKA	DEPT. OF ENVIRON. CONSERVATION	1973				X	X	X		
ARIZONA	DEPT. OF HEALTH SERVICES	1971	1972							
ARKANSAS	POLLUTION CONTROL & ECOLOGY	1971	1973				X			
CALIFORNIA	DEPT. OF PUBLIC HEALTH	1972	1977	1973	X	X		X		X
COLORADO	DEPT. OF HEALTH	1971	1977			X				
CONNECTICUT	DEPT. OF ENVIRON. PROTECTION	1971	1975			X				
DELAWARE	DEPT. OF NAT. RESOURCES & ENVIRON. CONTROL	1966	1976		Being drafted	X			X	
DISTRICT OF COLUMBIA	ENVIRON. HEALTH ADMIN. DEPT. OF ENVIRON. SERV.	1967	1976	1978		X	X		X	
FLORIDA	DEPT. OF ENVIRON. REGULATION	1974	1976		X	X	X		X	
GEORGIA	DEPT. OF NAT. RESOURCES	1972	1973		guidelines	X		X		
HAWAII	OFFICE OF ENVIRON. QUALITY CONTROL	1970	1974		X	X		X	X	
IDAHO	DEPT. OF HEALTH & WELFARE-DIV. OF ENVIRON.	1970	1974			X	X		X	
ILLINOIS	ILL. ENVIRONMENTAL PROTECTION AGENCY	1970	1973		X	X		X	X	
INDIANA	BOARD OF HEALTH-SOLID WASTE MGT. SECTION	1965	1974			X		X		
IOWA	DEPT. OF ENVIRON. QUALITY	1971	1975		X		X		X	
KANSAS	DEPT. OF HEALTH & ENVIRONMENT	1971	1977		X		X	X	X	
KENTUCKY	DEPT. OF NAT. RESOURCES & ENVIRON. PROTECTION	1973	1975	1978			X	X	X	
LOUISIANA	DEPT. FOR HEALTH & HUMAN RESOURCES	1950	1968		X	X	X		X	
MAINE	DEPT. OF ENVIRON. PROTECTION	1973	1975							
MARYLAND	WATER RESOURCES & ENVIRON. HEALTH ADMIN.	1970		1977	X	X		X	X	
MASSACHUSETTS	DEPT. OF ENVIRON. QUALITY	1969	1973			X	X		X	
MICHIGAN	DEPT. OF NAT. RESOURCES	1965	1973		X	X	X		X	
MINNESOTA	MINN. POLLUTION CONTROL AGENCY	1970	1973		X	X			X	
MISSISSIPPI	BOARD OF HEALTH	1974			X	X		X	X	
MISSOURI	DEPT. OF NAT. RESOURCES	1973	1975	1977		X	X	X	X	
MONTANA	DEPT. OF HEALTH AND ENVIRON. SCIENCES	1969	1976			X	X		X	
NEBRASKA	DEPT. OF ENVIRON. CONTROL	1971	1974		X	X		X	X	
NEVADA	DEPT. OF CONSERVATION & NAT. RESOURCES	1971	1977		X	X		X	X	
NEW HAMPSHIRE	DEPT. OF HEALTH & WELFARE	1973	1972		X	X		X	X	
NEW JERSEY	DEPT. OF ENVIRON. PROTECTION	1970	1977			X		X		
NEW MEXICO	ENVIRONMENTAL IMPROVEMENT AGENCY	1974		1977	X	X				X
NEW YORK	DEPT. OF ENVIRON. CONSERVATION	1972	1977		X	X	X		X	
NORTH CAROLINA	DEPT. OF HUMAN RESOURCES	1969	1976	1978		X	X		X	
NORTH DAKOTA	DEPT. OF HEALTH	1975				X				
OHIO	OHIO ENVIRONMENTAL PROTECTION AGENCY	1967	1976		X	X		X		X
OKLAHOMA	DEPT. OF HEALTH	1971	1976	1976		X		X	X	
OREGON	DEPT. OF ENVIRON. QUALITY	1969	1977	1976		X		X	X	
PENNSYLVANIA	DEPT. OF ENVIRON. RESOURCES	1968	1977			X		X	X	
RHODE ISLAND	DEPT. OF HEALTH	1968	1975	1978		X			X	
SOUTH CAROLINA	DEPT. OF HEALTH & ENVIRON. CONTROL	1972	1978			X		X	X	
SOUTH DAKOTA	DEPT. OF ENVIRON. PROTECTION	1972	1974	1977		X		X	X	
TENNESSEE	DEPT. OF PUBLIC HEALTH	1971	1977			X		X	X	
TEXAS	DEPT. OF HEALTH; DEPT. OF WATER RESOURCES	1969	1977			X		X	X	
UTAH	DEPT. OF HEALTH	1974				X		X	X	
VERMONT	AGENCY FOR ENVIRON. CONSERVATION	1967	1977					X		
VIRGINIA	DEPT. OF HEALTH	1971	1974			X			X	X
WASHINGTON	DEPT. OF ECOLOGY; HEALTH DEPT.	1971	1976	1976	X	X		X	X	
WEST VIRGINIA	DEPT. OF NAT. RESOURCES; DEPT. OF HEALTH	1973	1973	1978		X			X	
WISCONSIN	DEPT. OF NAT. RESOURCES	1967	1973			X	X			
WYOMING	DEPT. OF WATER QUALITY	1973	1975			X		X		

SOURCE: EPA

FISCAL YEAR 1978 ACTUAL vs. NEEDED RESOURCESACCORDING TO OFFICIALS IN THE 26 STATES CONTACTED

<u>State</u>	<u>Funds</u>		<u>Program needs</u>	
	<u>Actual</u>	<u>Needed</u>	<u>Actual</u>	<u>Needed</u>
Alabama	\$ 35,000	\$ 250,000	2	15
California	1,489,000	2,220,000	29	46
Connecticut <u>a/</u>	50,000	240,000	2.6	9.5
Delaware	100,000	300,000	3	5.5
Georgia <u>a/</u>	150,000	350,000	7	17
Illinois	124,000	539,000	7	34
Indiana <u>a/</u>	108,000	475,000	5	25
Iowa <u>a/</u>	50,000	250,000	6.5	14
Louisiana <u>a/</u>	60,000	300,000	3.5	12.5
Maryland	265,000	465,000	7	21
Massachusetts <u>b/</u>	100,000	300,000	4	12.5
Michigan	500,000	1,000,000	15	30
Minnesota <u>a/</u>	140,000	675,000	4	30
Missouri <u>a/</u>	60,000	300,000	2	13.5
New Jersey	224,647	625,000	7	25
New York <u>a/</u>	140,000	1,000,000	7	42
North Carolina <u>a/</u>	60,000	225,000	5	19
Ohio <u>a/</u>	120,000	1,265,000	1	55
Oklahoma <u>a/</u>	80,000	200,000	2	10
Oregon <u>a/</u>	80,814	250,000	2.2	9
Pennsylvania <u>a/</u>	126,000	779,000	4	32
Tennessee	200,000	300,000	8	18
Texas	482,122	753,122	32.5	41.5
Washington <u>a/</u>	100,000	250,000	4	15
West Virginia <u>a/</u>	60,000	630,000	1.5	21.5
Wisconsin <u>a/</u>	200,000	450,000	8	20
Total	<u>\$5,092,603</u>	<u>\$14,391,322</u>	<u>179.8</u>	<u>593.5</u>

a/States that may not accept program without adequate Federal funding (16 of 26 contacted).

b/For fiscal year 1977.

CALIFORNIA AND MARYLAND FEE SYSTEMS EXPLAINEDCALIFORNIA FEE SYSTEM

California's fee system was authorized in 1972 as a means to support the State's hazardous waste program. The act directed the California Department of Health to develop regulations requiring operators of hazardous waste disposal facilities to pay a fee covering all administrative costs incurred by the State program. Officials told us the fees are to be deposited monthly in a hazardous waste control account in the general fund and used solely for hazardous waste management and enforcement costs.

State hazardous waste control regulations required only the operators of "offsite" hazardous waste sites to pay fees for land disposed hazardous waste. To avoid administrative complexities, the State Department of Health adopted a fixed fee rate based on weight and decided to collect fees from the relatively few hazardous waste disposal sites in the State as opposed to the larger number of hazardous waste generators. Because the fees were not sufficient to cover program costs and allow hiring of additional personnel, they were raised from \$0.60 to \$1 a ton, and operators of "onsite" hazardous waste disposal facilities are now required to pay fees for hazardous waste disposal. Generally, the current regulations require operators of offsite and onsite hazardous waste facilities to pay \$1 a ton up to a maximum of \$2,500 a month from a specific producer for hazardous waste disposed on or into the land.

The following schedule reflects approximate and projected State costs, State and federally supported staff-years, and fees collected by the State for the hazardous waste program from fiscal years 1975 through 1978.

Fiscal year	State costs	Fee collections	Staff-years		
			State supported	Federally supported	Total
	(000	omitted)			
1975	\$ 220	256	6.2	6.0	12.2
1976	322	236	9.2	9.5	18.7
1977	319	318	12.2	16.0	28.2
1978	a/1,000	a/1,000	b/15.0	14.0	29.0

a/Estimated (reflects the increased disposal fee).

b/Although 28 positions were authorized, the program must repay State funds spent in excess of fee collections in fiscal years 1976 and 77 before additional staff can be hired.

State hazardous waste management officials told us that the new fee rate (\$1 a ton) would be sufficient to enable the program to repay funds borrowed from the State during fiscal years 1976 and 1977 and to cover all projected State program management and enforcement costs. These officials expect the fee system to supply sufficient funds to cover all State program costs in fiscal year 1978. These officials estimated that 1 to 2 million tons of hazardous waste are generated or brought into the State annually and that the fee system could generate up to \$2 million a year.

#### MARYLAND FEE SYSTEM

Maryland's hazardous waste program and fee system was authorized in 1976. A special fund was established to finance the program through a permit fee to be collected from both the hazardous waste disposer and the transporter. The Governor designated the Water Resource Administration responsible for implementing the act and for collecting the fees. In addition to paying for the program's management and enforcement activities, the funds obtained are to be used for (1) emergency removal of hazardous wastes and reduction of certain hazardous substances in the State's waters and (2) identification and restoration of natural resources that have been damaged by hazardous substances.

The Maryland fee system imposes three types of fees--two levied on disposers and one levied on transporters. Hazardous waste disposal operators pay (1) a \$50 one-time application fee, which covers permit-issuing expenses, and (2) an annual permit fee of at least \$50, plus a variable fee based on

- acres involved in the facilities operations
- type and quantity of hazardous substances at the facility,
- the degree to which the hazardous substance threatens human health and the environment,
- costs of monitoring and regulating the particular disposal facilities,
- anticipated costs of removal and proper disposal of all hazardous substances that may escape from the facility, and
- future anticipated hazardous waste program financing needs.

All fees, other than the disposal operator application fees as was explained earlier, are to be credited to the Maryland hazardous substance control fund.

From July 1, 1977, through June 30, 1978, the variable fee rate was based on estimated quantities of substances received at the disposal facility and the anticipated costs of monitoring and regulating the facility. For this period, the fees ranged from \$0.10 to \$100 per ton depending on the degree of danger that a particular hazardous substance presented to human health or the environment. After June 30, 1978, the fee was adjusted to also reflect actual annual costs to monitor and regulate the facility, the degree that hazards were reduced by treatment at the facility, and other factors. In addition, transporters of hazardous substances pay a yearly certification fee not to exceed \$50 a vehicle.

The fee system is expected to cover all State hazardous program costs. About \$80,000 in general revenue was used to establish the program and charged against the special fund. As a control measure, the Water Resource Administration must obtain approval from the State legislature to hire additional employees.

Maryland Water Resource Administration officials estimated that in order to meet Federal and State hazardous waste requirements, at least 21 people and about \$465,000 annually will be required to operate their program.





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